

CLAIMS

What is claimed:

- 1 1. An integrated circuit comprising:
 - 2 a base that includes power contacts which extend from an upper
 - 3 surface of the base to engage a daughterboard that includes a voltage source;
 - 4 a substrate mounted to the upper surface of the base, the substrate
 - 5 being electrically coupled to the base; and
 - 6 a die mounted on the substrate, the die being electrically coupled to
 - 7 the substrate to receive power from the voltage source through the power contacts
 - 8 on the base.

- 1 2. The integrated circuit of claim 1, wherein the voltage source is a
- 2 voltage regulator.

- 1 3. The integrated circuit of claim 1, wherein the upper surface of the
- 2 base includes a recess, the substrate being mounted within the recess.

- 1 4. The integrated circuit of claim 1, wherein the base further includes
- 2 I/O contacts extending from a bottom surface of the base.

- 1 5. The integrated circuit of claim 4, wherein the power contacts are
- 2 blade type and the I/O contacts are formed in a large grid array.

- 1 6. The integrated circuit of claim 1, wherein the substrate is surface
- 2 mounted to the base.

- 1 7. The integrated circuit of claim 1, further comprising a heat spreader
- 2 coupled to the die.

1 8. An electronic assembly comprising:
2 a base that includes power contacts which extend from an upper
3 surface of the base;
4 a substrate mounted to the upper surface of the base;
5 a die mounted on the substrate;
6 a motherboard positioned adjacent to a bottom surface of the base,
7 the motherboard being electrically coupled to the base; and
8 a daughterboard engaging the power contacts on the upper surface of
9 the base to electrically couple a voltage source on the daughterboard to the die.

1 9. The electronic assembly of claim 8, wherein the substrate is surface
2 mounted to the base.

1 10. The electronic assembly of claim 8, further comprising at least one
2 fastener that compresses the base against the motherboard and the daughterboard.

1 11. The electronic assembly of claim 8, further comprising a heat
2 spreader coupled to the die and a heat sink coupled to the heat spreader.

1 12. The electronic assembly of claim 11, further comprising at least one
2 fastener to secure the electronic assembly to a chassis.

1 13. The electronic assembly of claim 12, wherein the motherboard, the
2 base and the daughterboard are positioned between the heat sink and the chassis
3 when the electronic assembly is coupled to the chassis.

1 14. The electronic assembly of claim 8, wherein the upper surface of the
2 base includes a recess, the substrate being mounted within the recess.

1 15. The electronic assembly of claim 8, wherein the base further includes
2 I/O contacts extending from a bottom surface of the base to engage the
3 motherboard.

1 16. The electronic assembly of claim 15, wherein the power contacts are
2 blade type and the I/O contacts are formed in a large grid array.

1 17. An electronic system comprising:
2 a bus;
3 a memory coupled to the bus;
4 an electronic assembly that includes a motherboard and a
5 daughterboard where at least one of the motherboard and the daughterboard are
6 coupled to the bus, the electronic assembly further including a base mounted on the
7 motherboard, a substrate mounted to an upper surface of the base and a die mounted
8 on the substrate, the base including power contacts that extend from the upper
9 surface of the base to engage the daughterboard; and
10 a voltage source mounted on the daughterboard to provide power to
11 the die through the power contacts.

1 18. The electronic system of claim 17, wherein the base further includes
2 I/O contacts extending from a bottom surface of the base to engage the
3 motherboard.

1 19. The electronic system of claim 18, wherein the power contacts are
2 blade type and the I/O contacts are formed in a large grid array.

1 20. The electronic system of claim 17, wherein the upper surface of the
2 base includes a recess, the substrate being mounted within the recess.

1 21. The electronic system of claim 17, wherein the substrate is surface
2 mounted to the base.

1 22. A method comprising:
2 attaching a die to a substrate;
3 attaching the substrate to an upper surface of a base;
4 engaging power contacts that extend from the upper surface of the
5 base with a daughterboard that includes a voltage source; and
6 supplying power from the voltage source to the die using the power
7 contacts.

1 23. The method of claim 22, further comprising attaching a motherboard
2 to a bottom surface of the base.

1 24. The method of claim 23, further comprising securing the
2 motherboard and the daughterboard to a chassis.

1 25. The method of claim 24, wherein securing the motherboard and the
2 daughterboard to a chassis includes compressing the base, the substrate and the die
3 between the motherboard and the daughterboard.

1 26. The method of claim 22, wherein attaching a substrate to an upper
2 surface of a base includes surface mounting the substrate to the base.

1 27. The method of claim 22, wherein attaching a substrate to an upper
2 surface of a base includes mounting the substrate within a recess in the upper
3 surface of the base.

1 28. The method of claim 22, further comprising;
2 attaching a heat spreader to the die; and
3 attaching a heat sink to the heat spreader.